

EXAMINER'S AMENDMENT

Claims 5,6,11,12,15,16,22-27 are pending. Claims 1-4, 7-10, 13, 14, 17-21, 28, 29 have been cancelled.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Cornett (48,417) on 6/2/10.

The application has been amended as follows:

1-4. (Canceled).

5.(Previously Presented) The method claimed in claim 22, wherein the control station queries the Fibre Channel switch in response to a notification received from the host via an Internet Protocol (IP) network.

6.(Previously Presented) The method claimed in claim 5, wherein the host connects to the IP network using a DHCP protocol.

Claims 7-10 (Canceled).

11. (Previously Presented) The method claimed in claim 22, wherein the database uses the lightweight directory access protocol (LDAP).

12. (Previously Presented) A system for automatically configuring a diskless host computer upon being physically connected to a network, comprising:

- at least one diskless host computer that automatically boots an operating system as a result of being connected to the network, wherein the diskless host computer was not previously connected to the network;

- a storage system on which are stored a plurality of host configurations, each configuration including an operating system;

- a switch coupled to each diskless host computer and having a plurality of ports, each port coupled to the storage system; and

- a control station computer configured for:

- monitoring for receipt a World Wide Name (WWN) transmitted by the diskless host computer to the switch in accordance with a Fibre Channel log-in protocol, accessing, in response to receiving the WWN, a database comprising a correspondence between a WWN of each of a plurality of diskless host computers and a configuration associated with the corresponding diskless host computer in order to look up a configuration corresponding to the received WWN transmitted by the diskless host computer, said configuration identifying the operating system associated with the diskless host computer, and

directing the switch to provide the diskless host computer access to a storage device on which the operating system identified in the configuration is stored;

wherein the storage system is configured to copy the operating system to the storage device, to which the switch provides the diskless host computer with access, from another device of the storage system, said another device configured to maintain an unaltered copy of the operating system; and

wherein the database comprises a correspondence between a WWN of at least one diskless host computer not previously connected to the network and a configuration associated with the corresponding diskless host computer.

13. (Canceled).

14. (Canceled).

15. (Currently Amended) The system claimed in claim 12, wherein the a control station computer queries the Fibre Channel switch for the WWN and looks up the configuration in the database in response to the WWN.

16. (Previously Presented) The system claimed in claim 12, wherein the database operates under the lightweight directory access protocol (LDAP).

17-21 (Canceled).

22. (Previously Presented) A method for automatically booting a diskless host computer upon being connected to a Fibre Channel network, comprising:

physically connecting the diskless host computer to the network, wherein the diskless host computer was not previously connected to the network;

receiving, at a Fibre Channel switch, a World Wide Name (WWN) from the diskless host computer in accordance with a Fibre Channel log-in protocol;

looking up a configuration corresponding to the WWN received from the diskless host computer, wherein looking up a configuration corresponding to the WWN received from the diskless host computer further comprises: querying, by a control station computer, the Fibre Channel switch for the WWN received from the diskless host computer; and

accessing, by the control station computer in response to receiving the WWN, a database comprising a correspondence between a WWN of each of a plurality of diskless host computers and a configuration associated with the corresponding diskless host computer in order to look up the configuration corresponding to the obtained WWN, said configuration identifying an operating system associated with the diskless host computer, wherein the database comprises a correspondence between a WWN of at least one diskless host computer not previously connected to the network and a configuration associated with the corresponding diskless host computer;

copying the operating system identified in the configuration to a storage device from another storage device, said another storage device configured to maintain an unaltered copy of the operating system;

providing the diskless host computer access to the storage device, to which the operating system identified in the configuration was copied; and

the diskless host computer booting from the operating system copied to and stored on the storage device in response to being connected to network.

23. (Currently Amended) A method for automatically booting a diskless computer upon being physically connected to a network, comprising:

physically connecting the diskless computer to the network, wherein the diskless computer was not previously connected to the network;

transmitting, in response to being physically connected to the network, an identifier a World Wide Name (WWN) from the diskless computer;

receiving the identifier WWN by a control station computer;

querying, by the control station computer, in response to receiving the WWN identifier, a database with the identifier received to determine an operating system associated with the diskless computer, wherein the database comprises a correspondence between an identifier WWNs of each of a plurality of diskless computers and a configuration associated with the corresponding diskless computer, said configuration identifying an operating system, wherein the database comprises a correspondence between a the WWN of at least one diskless computer not previously connected to the network and a the configuration associated with the corresponding diskless computer;

copying the operating system identified in the configuration to a storage device from another storage device, said another storage device configured to maintain an unaltered copy of the operating system;

copying the identified operating system from the storage device, to which the operating system identified in the configuration was copied, to the diskless computer over the network; and

booting, as a result of being physically connected to the network, the diskless computer from the identified operating system.

24. (Previously Presented) The method claimed in claim 23, wherein the network comprises an IP network.

25. (Previously Presented) The method claimed in claim 24, wherein the diskless computer connects to the IP network using a DHCP protocol.

26. (Previously Presented) The method claimed in claim 23, wherein the network comprises a Fibre Channel network.

27. (Currently Amended) The method claimed in claim 26, wherein the identifier WWN is unique to an adapter used to connect the diskless computer to the network.

28. (Canceled).

29. (Canceled).

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art does not teach, a system for automatically configuring a diskless host computer when being physically being connected to a network that was not previously connected to the network(SAN) , e.g. new diskless host computer, in this system there is a storage system with a plurality of host configurations, in which each configuration have a different operating system, e.g. SOLARIS, Linux, AIX page 6, lines 5-15 of applicant's specification, there is also a switch that is coupled to each diskless host computer having multiple ports, and a control station computer which is configured to monitor for a receipt of a World Wide Name transmitted by the diskless host computer to the switch in accordance with a Fibre Channel log-in protocol, the use of Fibre Channel log-in protocol is used in gigabit-speed networks, e.g. fiber optic networks, in response the receiving the WWN, a database is accessed in order to look up a configuration, corresponding to the received WWN transmitted by the diskless host computer, in the database there is correspondence between a WWN of each of a plurality of diskless host computers and a configuration associated with the corresponding diskless host computer, and each configuration identifies an OS associated with the diskless host computer, the switch is then directed to provide the

diskless host computer access to a storage device on which the OS is stored, a copy is made of the OS to the storage device, in which the diskless host computer has access to, there is also another device in the storage system that maintains a copy of an unaltered copy of the OS, the diskless host computer can alter the OS, e.g. "working copy of OS" and while another device preserved the "gold copy", page 10, lines 15-25 of applicant's specification, the diskless host computer boots from the OS that is copied to and stored on the storage device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BACKHEAN TIV whose telephone number is (571)272-5654. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. T.
Backhean Tiv
Examiner, Art Unit 2451
6/2/10

/John Follansbee/
Supervisory Patent Examiner, Art Unit 2451